Comment Letter O049 Continued

alternative, let alone HST alignment and station alternatives. The affected environment discussion does not provide an adequate description of the "traffic-sheds" that may be affected by the project. In addition, it appears that the Modal Alternative and HST are compared with the No Project, rather than existing conditions as required by CEQA and NEPA. The DEIR/S describes the existing condition as the transportation infrastructure that exists in 2003 and its associated levels of service. DEIR/S page 3.1-7. The No Project includes the existing infrastructure, plus the implementation of funded and programmed transportation improvements that will be operational by 2020 and the projected level of service of that infrastructure in 2020. DEIR/S page 3.1-7. The comparison of the Modal Alternative and HST with the No Project rather than with existing conditions results in an underestimation of the new impacts associated with these alternatives, because they assume a new baseline condition. See DEIR/S pages 3.1-12 and 3.2-8. A revised traffic analysis must compare the Modal Alternative and HST to both existing baseline conditions and to the "future" No Project conditions. Under the first analysis, those improvements that really are likely to be completed should be added to the Modal and HST Alternatives as part of these projects.[4]

The study area for assessing impacts to traffic and circulation is also insufficient to fully examine project-related impacts. No evidence is provided to support the use of the limited study area. To the contrary, riders of HST are likely to travel great distances as they do for air travel to HST stations. The DEIR/S fails to provide adequate information about this likelihood. The study area should be expanded to include the entire traffic-sheds based on updated and complete ridership information, project description information (e.g. potential freight service)[5], and the like. This and other incomplete and inconsistent setting information must be provided in a revised DEIR/S. In the absence of adequate, accurate and complete setting information, adequate analyses of project-related and cumulative impacts cannot be completed.

O049-12 cont.

Third, the DEIR/S underestimates impacts to traffic and circulation because the project description omits adequate and complete information about the true extent of project-related impacts and fails to adequately analyze impacts. Specifically, direct impacts are likely to be much greater than described because the project description fails to include all project features that will induce traffic (e.g. freight transport on HST, construction period traffic, etc.).

Fourth, the DEIR/S also does not address the feasibility of mitigating many of the potentially significant impacts identified. Specifically, the DEIR/S defers development of all recommended mitigation "strategies" until the project-level analysis is completed. For example, the DEIR/S includes the following strategy:[6]

[4] The DEIR/S's approach to analyzing impacts of traffic, noise and air quality all improperly compare the Modal and HST alternatives to the No Project instead of to existing conditions as required by law.
[5] If HST is used for freight service, the traffic-shed should be expanded to include the range of freight delivery and pick-up service to and from HST stations.
[6] Also, the 1990 bond measure that funded a significant portion of HSRA's work on this project requires bicycle access on rail systems benefiting from the bond. The DEIR should clearly outline provisions for accommodating bicycles on HST cars and at facilities. This analysis should provide an opportunity to highlight plans to maximize bicycle and pedestrian access to stations.

> Transportation: "Consultation and coordination with public transit services in order to encourage the provision of adequate bus feeder routes to serve proposed station areas could mitigate potential transit feeders." DEIR/S page 3.1-24

This approach to mitigation is simply inadequate for either modal alternative selection or more detailed alignment and station location selection for HST. Feasible mitigation measures must be identified and in the case of more detailed decisions concerning HST alignments and stations, additional details concerning these project descriptions must be provided. It is not appropriate to make and alignment choice based on the possibility significant impacts to traffic and circulation "might" be avoided by as yet undetermined mitigation or that people may be encouraged in greater numbers than ever before choose transit over their single occupancy vehicle.[7]

O049-12 cont.

The DEIR/S fails to reach any conclusions concerning the significance of traffic impacts for any of the alternatives. It is clear that traffic impacts will be significant for all alternatives from reviewing the text. A revised DEIR/S must identify the significant impacts of each alternative before and after mitigation.

Finally, a number of mitigation measures will in turn have significant impacts that are not analyzed in the DEIR/S. For example, major transportation improvements are identified as potential mitigation to alleviate congestion. A revised DEIR/S must analyze the indirect or secondary impacts of these measures. In addition, the feasibility of acquiring rights-of-way to accommodate these improvements must also be addressed.

b. The DEIR/S Fails to Analyze Adequately Air Quality Impacts

The DEIR/S fails to adequately and accurately evaluate the potentially significant air quality impacts of HST as a result of construction and operations of the project. In both cases, the DEIR/S leaves analysis of specific impacts for the project-level analysis.

O049-13

> "Potential construction impacts and potential mitigation measures should also be addressed in subsequent analysis. Once an alternative and alignment is established a full construction analysis should be conducted. This analysis should quantify emissions from construction vehicles, excavation, worker trips, and other related construction activities. Mitigation measures, if required, should be detailed and a construction monitoring program, if required should be established." DEIR/S page 3.3-33.

[7] It is worth noting that the Metropolitan Transportation Commission established a goal of increasing public transit use by 15% in 1982 as a "best management practice" to meet federal Clean Air Act requirements and, over 30 years later, has not met this goal. This failed attempt to promote public transit has been a subject of litigation this year (see http://www.ocefoundation.org/MTCENB_5_2.htm). The instant DEIR/S cannot credibly rely on an unformed plan to encourage MTC or other transportation agencies to encourage public transit use, even where such agencies are willing. More substantial required mitigation methods are required.

Comment Letter O049 Continued

> "Once alignments are selected, if a decision is made to proceed with the proposed HST system, then local traffic counts could be conducted at access roads serving major station locations. These counts would provide more accurate information for determining potential local air quality hotspot locations." DEIR/S page 3.3-33

This deferral of impact analysis and mitigation contravenes both CEQA and NEPA. The DEIR/S states that the construction period would last at least 10 years and the miles of corridor under construction at one time would extend across much of the State, rendering these impacts significant. DEIR/S page 7-2. These impacts must be reviewed before a modal choice is selected and prior to selection of alignments and station locations.

Mitigation "strategies" to address air quality impacts are not only deferred until project-level review, they also lack specificity and enforceability. For example:

> Air Quality: "Potential localized impacts could be addressed at the project level by promoting the following measures. Increase use of public transit; increase use of alternative fuel vehicles; increase parking for carpools, bicycles, and other alternatives transportation modes." DEIR/S page 3.3-33.

> Air Quality: "Potential construction impacts, which should be analyzed once more detailed project plans are available, can be mitigated by following local and state guidelines." DEIR/S page 3.3-33.

O049-13 cont.

Feasible mitigation measures to address the potentially significant and unavoidable air quality impacts of all three alternatives must be included in a revised DEIR/S. Such measures include, but are not limited to measures that require cleaner construction vehicles, urban forestry, green building standards, and most importantly, directing these transportation improvements and all state transportation funding to occur in urban areas, rather than in undeveloped areas where they will promote sprawl (as is the case with many of the proposed alignment and station alternatives including, but not limited to, the Pacheco and Diablo routes).

In addition, like the traffic analysis, it appears that the approach to analyzing the air quality impacts of the Modal Alternative and HST was improper. These alternatives are compared with the No Project, rather than existing conditions as required by CEQA and NEPA. The DEIR/S describes the existing condition as the transportation infrastructure that exists in 2003 and its associated levels of service. DEIR/S page 3.1-7. The No Project includes the existing infrastructure, plus the implementation of funded and programmed transportation improvements that will be operational by 2020 and the projected level of service of that infrastructure in 2020. DEIR/S page 3.1-7. The comparison of the Modal Alternative and HST with the No Project rather than with existing conditions results in an underestimation of the new impacts associated with these alternatives, because they assume a new baseline condition. A revised air quality analysis must compare the Modal Alternative and HST to both existing baseline conditions and to

the "future" No Project conditions. Under the first analysis, those improvements that really are likely to be completed should be added to the Modal and HST Alternatives as part of these projects.

As with other areas of analysis, air quality impacts will vary by alignment for both phase I of the project and for the project at full buildout. Key variables include construction-related air quality impacts, operational impacts and induced growth impacts. Different alignments will draw different levels of ridership from autos versus air travel, and have the potential to affect goods movement (i.e. truck traffic) differently if freight service is offered. Also, station selection, location, and placement will affect modal access to the system.

O049-13 cont.

c. The DEIR/S Fails to Analyze Adequately Agricultural Issues

The DEIR/S's approach to analyzing impacts to agricultural land is flawed for a number of reasons. Most notably, in the land use analysis, the DEIR/S calculates only that land directly impacted by the proposed alignments being overlain atop the FMMP farmland GIS shapefile in its analysis section concerning impacts to farmlands. Moreover, differential study areas were used for the modal alternative and HST. For the modal alternative, the study area was determined to extend from the edge of the existing right-of-way to 25 ft (8 m) on both sides of existing right-of-way, including added lanes with shoulders and other required additions. For HST the study area was determined to be 100 feet. According to the DEIR/S, this is a conservative study area, because it would be possible to fit the HST line within a 50 foot right-of-way in constrained areas. DEIR/S page 3.8-3 to 4. This approach grossly underestimates the impacts of these alternatives on agriculture and farmland.

In addition, based on the review of the DEIR/S by the American Farmland Trust, the DEIR/S contains two different sets of figures for the projected consumption of agricultural land as a result of growth induced urbanization. At one point, it concludes that, under the HST alternative, about 478,000 additional acres of Central Valley land will be urbanized by 2035. (DEIR, Table 5.3-6, p. 5-20; CSI Table 5.2, p. 5-3). The DEIR/S also estimates that only 303,200 acres of farmland will be converted in the Valley during the same period. (DEIR, Table 5.4-1, p. 5-28). The only way these figures can be reconciled is if more than one-third of the land expected to be urbanized in the Central Valley will *not* be farmland. Regrettably, there is insufficient information in the DEIR and in the CSI and Parson Brinckerhoff reports on which it is based to explain its confusing conclusions. For purposes of further critique, we use the farmland urbanization figures from Table 5.3-6 and the CSI report.

O049-14

Even the higher DEIR estimate of growth induced urbanization appears to be much too low. According to American Farmland Trust, it was derived using population density figures that are unrealistically high compared to existing and planned densities in the Central Valley. If an average of 7.4 people per acre (the density of new development from 1990 to 2000) is used, rather than the 8.7 people per acre assumed by the DEIR, to calculate future urbanization, more than 560,000 acres of land in the Central Valley

Comment Letter O049 Continued

would be developed – 18 percent more than the DEIR claims. If the amount of land zoned for rural "ranchettes" is considered, the total loss of farmland to urbanization by the year 2035 could be in the range of 1.2 million acres. Since there are only about 5 million acres of irrigated farmland in the Central Valley, such an impact could be devastating to agriculture. (See AFT Critique of HST DEIR, available at www.farmland.org/California/policy.htm)

The analysis also fails to analyze impacts to agricultural infrastructure necessary to sustain ongoing agriculture. The analysis only considers potential fragmentation of farmland or loss of farmland acres. DEIR/S at 3.8-1 and 3.8-6. Because the project description is lacking, these discussions fail to disclose the significance of these impacts. Moreover, the DEIR/S overlooks the impacts of the project on grazing. This impact is simply deferred until a later analysis. The DEIR/S ignores the spillover effects of residential development on farming operations. According to the review by the American Farmland Trust, these spillover effects could affect 2 to 3 times as much farmland as is actually converted as a result of new residential uses conflicting with farmland uses.

Mitigation strategies for agricultural impacts are also improperly deferred:

> "Consideration of potential mitigation such as protection or preservation of off-site lands to mitigate conversion of farmlands or acquiring easements, or payment of an in-lieu fee as mitigation mechanisms, would depend on the potentially considerable environmental impacts identified at specific locations, as assessed in a project-level document. DEIR/S page 3.8-18.

Specific mitigation measures that must be included in a revised and recirculated DEIR/S include those identified in the Land Use and Planning Section of this letter, such as purchase of agricultural easements to protect farmland before HST is introduced, urban growth boundaries and smart growth zoning in communities served by HST. In addition, a revised DEIR/S must provide evidence that proposed mitigation measures will actually reduce or eliminate the significant conversion of farmland. References to land use patterns that have emerged in other countries, subject to very different land use regulations than in California, should not be the basis for conclusions reached in the DEIR/S concerning the efficacy of proposed mitigation measures. Examples from the U.S. should be sought.

O049-14 cont.

d. The DEIR/S Fails to Analyze Adequately Biological Resource Issues

Once the presence of biological resources in a project site have been identified and described, a DEIR/S must then analyze how the direct and indirect impacts of the project and cumulative projects would affect resources. As set forth in the CEQA Guidelines Section 15126(a):

> Direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both short-term and long-term effects. The discussion should include relevant specifics of the area, the resources involved, physical changes, alterations to the ecological systems, and . . . .

O049-15

The DEIR/S does not disclose the project's (including all alternatives) impact to the physical environment and its corresponding effect on biological resources as required under CEQA and NEPA for a number of reasons including, but not limited to the lack of adequate and complete setting information, inadequate analysis of impacts and failure to identify feasible mitigation measures. Our summary of the significant flaws and omissions in the DEIR/S with respect to biological resources follows.[8] A full presentation of the inadequacies of the discussion of biological resources in the DEIR/S is contained Attachment C hereto, Flaws in the DEIR/EIS's Analysis of Biological Impacts prepared by Defenders of Wildlife.

First, omitted and inadequate project description information makes it impossible to adequately evaluate project related impacts on biological and wetland resources. Examples of omitted or inadequate project description elements that result in an underestimation of biological impacts include, but are not limited to the locations and extent of fencing (including provisions for wildlife passage) and noise walls, the extent of grading and remedial grading, the location and extent of construction staging areas, the location and extent of borrow and spoils sites, the extent of borings, the location and extent of construction-related roads and traffic, the use of water for tunneling and dewatering related to construction, among other facets of the project that are not adequately disclosed or described in the DEIR/S. While the DEIR/S does describe a general methodology for tunneling, it fails to identify impacts of tunneling on wilderness and wildlife. Similarly, the DEIR/S describes noise and vibration generated by the alternatives, but fails to identify or analyze any impacts of this on wildlife, including aquatic species. This failure in part stems from the lack of an adequate project description. We are informed by experts that the overhead cables will be continuously electrified; another key piece of information about the project that has the potential to result in significant impacts including bird mortality and electromagnetic field or interference on wildlife. Because the project description is not complete, these impacts are not addressed in the DEIR/S.

O049-15 cont.

Second, the description of the affected environment discussion has numerous omissions and inconsistencies that make the section inadequate for choosing a preferred modal alternative, let alone HST alignment and station alternatives. The affected environment discussion does not provide an adequate description of the status of habitats and species that may be affected by the project, or the regional context and interrelationships of the resources within and between project regions. In addition, there are many factual and typographic errors that raise questions regarding the validity of the entire analysis. A few examples are discussed below but should not be considered an exhaustive list of inadequacies.

[8] This section was prepared with assistance from Michael White, PhD, lead biologist with the Conservation Biology Institute and Defenders of Wildlife.

Comment Letter O049 Continued

The study area for assessing impacts to biological resources is inadequate. Specifically, the study area for biological resources is 1,000 feet on either side of the alignment centerlines and stations in urban areas; 0.25 miles on either side of alignment centerlines and around stations in undeveloped areas; and 0.50 milts on either side of alignment centerlines around stations in sensitive areas. DEIR/S page 3.15-4. Impacts to biological resources associated with all modal alternatives, including HST, are likely to extend well beyond these limited study areas. For example, where HST will involve extensive earthwork and potentially tunneling, hydrologic regimes that support habitat and species, could be severely affected or destroyed. A much larger study area should be used in a revised analysis of impacts in both undeveloped and sensitive areas. A revised DEIR/S should propose and defend an adequate study area based on the true extent of impacts to biological resources and must include an evaluation of the relative quantity and importance of the habitat to be destroyed on short- and long-term species survival. This information is simply missing in the DEIR/S.

The affected environment section of the DEIR/S is inconsistent in its description of protected areas and other biologically important but unprotected land. For example, several important open space areas (e.g., The Don Edwards San Francisco Bay National Wildlife Refuge, Nature Conservancy's Mount Hamilton Project, South Bay Salt Pond Restoration Project, Henry Coe State Park) are mentioned in the Bay Area to Merced region but the DEIR/S does not mention the numerous other federal, state, local, and privately owned biological open space areas that occur within this and other regions of the project. These open space preserves represent substantial conservation investments by the citizens of California and are critical to the conservation of California's globally significant biodiversity.

In addition, the DEIR/S uses limited information to formulate its affected environment section, which is not likely to be consistent across the project area. For example, California Natural Diversity Database information is only available for areas that have been previously surveyed and only if the survey information were submitted to the state. There are many portions of the study area that have not been surveyed and often survey data are not provided to the state. Alternative sources of information should be included in the development of the affected environment section, including information used to develop and manage open space reserves in California, such as Natural Community Conservation Planning (NCCP) efforts and species recovery planning efforts. In addition, the DEIR/S relies on the National Wetlands Inventory to analyze impacts to wetlands. This database provided only a very coarse and incomplete analysis of wetlands in California. A revised DEIR/S must base its conclusions concerning impacts to important remaining California wetlands on a more thorough assessment of wetlands, including on-the-ground surveys. In addition, the revised analysis must consider the potential impacts of tunneling and other interferences with hydrologic regimes on the short- and long-term existence of these wetlands.

The biological resources and wetlands section merely provides narrative lists of species that may be potentially affected by the project. There is no differentiation between rare, threatened, or endangered species. There is no meaningful discussion of the individual

O049-15 cont.

21

species that would allow an assessment of the potential for the project to adversely affect the species via direct, indirect, or cumulative impacts. There are numerous species with designated and proposed critical habitat in the impact area of HST. Yet, the DEIR/S fails to discuss impacts to critical habitat except in the Los Angeles to San Diego technical report. A revised DEIR/S must include this information – information that will be key to obtaining federal permits for the project. See Attachment C, section 5.

The description of wildlife movement/migration corridors provides no information on what areas the corridors are connecting and which species may be using them. The DEIR/S states that it uses the Missing Linkages report (California Wilderness Coalition 2000) to assess potential impacts to wildlife corridors but does not discuss potential impacts to the individual corridors described in the report. In addition, merely identifying where linkages will be cutoff by HST fails to address the significant habitat fragmentation that will occur with the introduction of a rail alignment. There is substantial scientific literature on habitat fragmentation as a result of new roads. See Attachment C. The DEIR/S fails to make full use of this science in analyzing the similar impacts of HST on biological resources. A revised DEIR/S must include an analysis of the direct and indirect impacts of habitat fragmentation including the potential for extinction of species where the shrunken islands are habitat are no longer functional and introduction of exotic species.

Finally, the DEIR/S does not discuss several NCCP planning efforts with preserve areas that may be affected by the project. For example, the Orange County Central Coastal NCCP and the Western Riverside NCCP (both approved), through which project alignments traverse, are not discussed at all in the DEIR/S. The San Diego Multiple Species Conservation Program (MSCP) and North San Diego County MHCP (incorrectly referred to as the "MSHCP") are discussed under the Los Angeles to San Diego via Inland Empire region, but the DEIR/S states that there are "no conservation plans identified" within the Los Angeles to San Diego via Orange County region. This region contains three approved NCCPs and one in preparation (Southern Orange County NCCP). In Kern and Merced counties, where adopted HCPs/NCCPs are in place, the DEIR/S fails to address the potential impact of the HST project on areas protected under these conservation plans. Specifically, the DEIR/S fails to address the likely direct and indirect (growth inducing) impacts on protected and biologically sensitive lands.

This and other incomplete and inconsistent setting information must be provided in a revised DEIR/S. In the absence of adequate, accurate and complete setting information, adequate analyses of project-related and cumulative impacts cannot be completed.

Third, the DEIR/S underestimates impacts to biological resources because the project description omits adequate and complete information about the true extent of biological impacts associated with the project and related projects. Specifically, among the direct impacts of the project are removal of vegetation, interference (blocking and alteration) of hydrologic systems, and wildlife mortality from construction activities and train strikes. Indirect impacts include, but are not limited to: noise, vibrations and lighting, habitat fragmentation, disrupted movement patterns, altered drainage and water flows, invasion

O049-15 cont.

22

Comment Letter O049 Continued

by exotic species along disturbed areas in the right-of-way and modified fire regimes. Also, the DEIR/S fails to address the potential impacts associated with continuously electrified overhead cables, including species mortality and EMF/EMI effects. In addition, the impact analysis and maps presented in the DEIR/S does not identify the nature of the impact to individual resources in specific geographic areas, thus preventing a complete understanding of the true impacts of the project or the various alternatives.

The DEIR/S appears to completely overlook the fact that the proposed Pacheco Pass Alignment would bisect the Grassland Ecological Area, causing fragmentation and other direct and significant impacts. The Grassland Ecological Area is an irreplaceable, internally significant ecological resource located just north and east of Los Banos. Moreover, the growth-inducing impacts of locating a station in Los Banos will also place significant pressure for development in these sensitive areas. The DEIR/S fails to address the importance of these lands or discuss the extent to which growth pressure from the location of HST in this relatively undeveloped region could impact these sensitive areas. As a result, the impacts to the refuge and other areas of protected open space are not adequately disclosed or analyzed.[9] The DEIR/S also fails to analyze potential project-related noise and vibration impacts on species, and indirect impacts of habitat fragmentation, which could extend well beyond the impact corridor used in the impact analysis.

Fourth, the DEIR/S also does not address the feasibility of mitigating many of the potentially significant impacts identified, many of which appear to be unmitigable (e.g., tens of thousands of acres of sensitive species habitat in the Bay Area to Merced region, dozens of vernal pools in the Los Angeles to San Diego via Inland Empire region). Mitigation "strategies" proposed for biological resource impacts are vague and deferred. For example, the DEIR/S states:

> "Potential strategies to mitigate impacts on biological resources would include field verification of sensitive resources and filling data gaps to allow designs to avoid impacts on special-status species and sensitive habitat areas…For example, to avoid or minimize impacts in sensitive areas, alignment plans and profiles could be adjusted or proposed structures could be constructed above grade or in tunnels…Special mitigation needs would be considered in the future with the appropriate authorities that are responsible…" DEIR/S page 3.15-31.

This approach to mitigation is simply inadequate for either modal alternative selection or more detailed alignment and station location selection for HST. Feasible mitigation measures must be identified and in the case of more detailed decisions concerning HST alignments and stations, additional details concerning these project descriptions must be provided. It is not appropriate to make an alignment choice based on the possibility that significant impacts to biological resources "might" be avoided by as yet undetermined

O049-15 cont.

[9] For additional information about the ecological importance of the Grasslands and the significant impacts of the Pacheco Pass Alignment and Los Banos station on these resources please see the letter submitted on behalf of the Grassland Water District, which is hereby incorporated by reference.

mitigation. Such mitigation (e.g. additional tunneling or above grade construction) may prove to be infeasible.

A revised analysis of project-related and cumulative impacts to biological resources must be completed as part of a revised and recirculated DEIR/S and, at a minimum, must include the following:

- Consistency with local natural resources related planning elements and policies for each jurisdiction the alignment traverses;
- Conflicts with NCCP or HCP plans;
- Conflicts with existing protected areas and parklands;
- Quantification of all direct, indirect, and cumulative impacts to natural resources, both permanent and temporary;
- Assessment of adverse impacts to wildlife movement corridors and opportunities to enhance the function of these corridors;
- Assessment of anticipated mitigation measures and permitting requirements, and the probability of successfully mitigating specific impacts;
- Assessment of any growth inducing impacts to natural resources (see Planning/Land Use Study Terms below).

O049-15 cont.

The DEIR/S contains a lengthy list of subsequent analyses that would be required to "obtain more reliable assessments of potential impacts on biological resources in the study area." DEIR/S page 3.15-31. The technology exists to complete these analyses before selection of HST and specific alignments and station locations. It is simply not appropriate to make choices concerning HST alignments and stations without this information being developed and circulated for public review and comment in a revised DEIR/S.

e. The DEIR/S Fails to Adequately Analyze Land Use and Planning Impacts

The DEIR/S analysis of land use impacts with respect to both modal alternatives and HST alignments and station choices is inadequate and incomplete. Specifically, such an analysis must include analysis of the following aspects of the project:

- Consistency with local plans and policies for each jurisdiction the alignment traverses;
- Consistency with applicable regulations of permitting agencies, where relevant.

O049-16

The DEIR/S does not disclose the project's (including all alternatives') impact to the physical environment and its corresponding effect on land uses as required under CEQA and NEPA for a number of reasons including lack of adequate and complete setting information and study areas, inadequate analysis of impacts and failure to identify feasible mitigation measures.

Comment Letter O049 Continued

First, omitted and inadequate project description information makes it impossible to adequately evaluate project related impacts on land use. Examples of omitted or inadequate project description elements that result in an underestimation of land use impacts include, but are not limited to the scale of the stations and parking facilities, the extent of new and expanded infrastructure and public services needed for HST, general plan and zoning amendments for the stations and related facilities and the like. Absent a description of the whole project, land use impacts cannot be fully disclosed or analyzed.

Second, the description of the affected environment discussion in the Land Use Section has numerous omissions and inconsistencies that make the section inadequate for choosing a preferred modal alternative, let alone HST alignment and station alternatives. For example, the DEIR/S suggests that general plans were considered in economic and growth inducing model by Cambridge Systematics, Inc. However, there is no evidence that general plans and zoning were actually considered. Moreover, the affected environment discussion does not provide an adequate description of the setting for areas affected by the project alternatives. The study area for land use is limited to 0.25 miles on either side of the centerline of the rail and highway corridors included in the alternatives, and the same distance around stations, airports and other HST facilities. For the property impacts analysis, the study area is only 100 feet. These limited study areas result in a gross underestimation of the land use compatibility impacts that could occur as the result of these projects being constructed. The study areas must be expanded to address the true effects of a train going by at 200 miles per hour and the growth inducing impacts of the HST that may completely alter existing neighborhoods. Revised analyses of project-related and cumulative land use impacts must be completed based on a complete description of the project and project setting.

Third, the land use discussion fails to adequately address environmental justice impacts. A revised DEIR/S must fully address these potential impacts in compliance with Order DOT 5610.2 and other applicable guidelines. The discussion of these impacts is largely and inappropriately deferred until project-level review occurs. This approach renders it impossible to redirect alignments or stations based on environmental justice impacts because it will be too late.

Further, the DEIR/S fails to point out a number of project inconsistencies with applicable policies and regulations. For example, two of the proposed Bay Area Alignment Options go through Henry Coe State Park and its Orestimba Wilderness. The DEIR/S fails to discuss the applicability of the California Wilderness Act of 1974 (Public Resources Code 5093.30 through 5093.40) and the legal implications of creating a railroad right of way through the Orestimba Wilderness. The California Wilderness Act specifically prevents the construction of new roads or motorized transport through Wilderness Areas. Thus a new High Speed Rail Right of way would clearly be in violation of the spirit and the letter of the California Wilderness Act. De-classifying large areas of the Orestimba Wilderness as official State Wilderness areas would severely undermine the California Wilderness Act and the protection of thousands of acres of land that are supposedly protected by it.

O049-16 cont.

The DEIR/S fails to identify feasible mitigation measures for significant land use impacts. Mitigation "strategies" proposed for land use impacts are vague and deferred. For example, the DEIR/S states:

> Land Use: "Local land use plans and ordinances would be further considered in the selection of alignments and station locations…" DEIR/S page 3.7-26.

This approach to mitigation is simply inadequate for either modal alternative selection or more detailed alignment and station location selection for HST. Feasible mitigation measures must be identified and in the case of more detailed decisions concerning HST alignments and stations, additional details concerning these project descriptions must be provided. It is not appropriate to make an alignment choice based on the possibility significant impacts to land use and environmental justice "might" be avoided by as yet undetermined mitigation.

For example, with respect to land use impacts, the DEIR/S should have specified mitigation requirements for land use and growth inducing impacts including:

- "Requirements" for agreements with cities/counties the route traverses for "smart growth" policies (e.g. in downtowns around stations specific programming for higher densities, etc.; in rural areas specific policies for farmland protection, etc.). The Metropolitan Transportation Commission is currently developing recommendations for land use policies that must be in place in order to receive certain transportation funding. HST should be conditioned on these same types of policies. If "smart growth" policies are not in place prior to HST being constructed, the sprawl inducing impacts will be significant;
- up-front purchase of conservation and agricultural easements to either side of the tracks;
- fees (such as an ongoing portion of ticket revenues) for additional purchase and stewardship of conservation, recreational and agricultural lands; and
- Limitations on the number of stations.

In addition to identifying feasible alignments and station locations in existing urbanized areas to minimize conversion of agricultural and habitat lands to urban uses, these measures put into place early would further improve the chances that HST would result in beneficial impacts.

Last, it is not clear from the DEIR/S what the significant land use impacts are before and after mitigation. It is clear that the conclusion reached in Table 7.3-1 – potentially significant land use impacts will be potentially less than significant after mitigation – is not supported by evidence in the DEIR/S. A revised and recirculated DEIR/S must include clear statements of significance and demonstrate how mitigation measures will in fact reduce potentially significant impacts to less than significant.

f. The DEIR/S Fails to Analyze Adequately the

O049-16 cont.

Comment Letter O049 Continued

Growth Inducing Potential of the Alternatives

The DEIR/S fails to provide any meaningful analysis of the growth inducing potential of the proposed alternatives and in particular HST. Based on inadequate and contradictory information, the DEIR/S concludes that the growth potential with HST is "potentially beneficial" with mitigation strategies. DEIR/S Table 7.3-1. This and other conclusions reached in the DEIR/S are not supported by adequate and transparent analysis or substantial evidence.

CEQA requires that an EIR contain an analysis of a project's growth inducing impacts. Growth-inducing impacts are those that encourage or facilitate other activities or projects that could significantly affect the environment. The "detailed statement" setting forth the growth inducing aspects of a project must "[d]iscuss the ways in which the proposed project could foster economic growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment." CEQA Guidelines Section 15126.2(d). It must also discuss how a project may "encourage or facilitate other activities that could significantly affect the environment, either individually or cumulatively" or remove obstacles to population growth. Population growth in turn may impose new burdens on existing or planned community services. Similarly, NEPA requires that agencies consider the indirect effects of a proposed action, such as growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate. 40 CFR 1508(b).

The general analysis of growth inducement that is included in the DEIR/S fails to accurately analyze and document the likely growth that could be induced and erroneously concludes that growth induced by HST will be beneficial after mitigation strategies are imposed. Lead agencies must not assume growth induced in an area is beneficial or of little consequence until it has completed open minded analysis. CEQA Guidelines section 15126.2, subd.(d). Here the DEIR/S conclusions concerning growth inducement are not supported by evidence. The exercise of analyzing growth inducement is technically feasible and must be included in a revised DEIR/S. Major flaws in the DEIR/S approach to growth inducement include but are not limited to the following:

First, the DEIR/S fails to provide any analysis of the growth inducing potential of the proposed alternatives and in particular of the HST alignment and rail stations in specific areas where stations will be located. While the DEIR/S fails to analyze growth inducing impacts on specific alignments and station locations, it does provide general information concerning potential economic and housing growth inducement by region. For example, the DEIR/S concludes that HST would make it possible for people living almost anywhere in the Central Valley to commute to employment centers in Sacramento, the Bay Area and Los Angeles. "Transportation investments can lead to reduced travel time or cost [and] improved accessibility to regions." DEIR/S page 5-1. The "blackbox" growth model by Cambridge Systematics, Inc., which underlies the DEIR/S analysis, bases its conclusions concerning growth inducement on the number of jobs within a 90-mile radius. Notwithstanding the overwhelming evidence that this approach applied to remote areas like the Pacheco and Diablo alignments will traverse would result in

O049-17

tremendous growth pressure, the DEIR/S concludes that HST will make little difference in the future population of the Central Valley. This conclusion is simply not supported by the evidence provided in the DEIR/S. To the contrary, elsewhere in California, recent growth patterns demonstrate that accessibility to major employment centers has triggered tremendous new growth.[10] The introduction of HST to the rural and undeveloped areas along the Pacheco and Diablo routes will make it possible for Bay Area residents to easily commute to and from them affordable suburban and rural housing in and around the Grasslands area and create significant pressure for growth of housing and new services in the area. Additional growth in the rural areas poses significant indirect threats as a result of increased population and pressure on farmlands and open space. The applicable county general plans for these rural areas call for a predominance of low density and rural residential uses. The relative affordability of homes and property in these areas as compared with the Bay Area will be a tremendous draw for Bay Area workers to move to the area. A revised DEIR/S must disclose and analyze the likely growth inducing impact of HST on these rural areas including how introduction of the station is likely to accelerate growth and increase demand for subdivisions and development. Land conversion estimates should be developed for each rural area served by HST.

Second, the DEIR/S conclusions that HST will lead to more efficient use of the land and higher densities are simply not supported by the general plans or by evidence in the DEIR/S. Incredibly, the DEIR/S concludes that the HST Alternative will result in significant land use efficiencies over both the No Project and Modal Alternatives:

- "The efficiency for the HST Alternative is achieved in conjunction with the highest population and employment growth rates of all alternatives and would be 6.3% more efficient than the Modal Alternative." DEIR/S page 5-22.
- The HST Alternative provides an increments development density that is 4% more efficient than the No Project Alternative, while the Modal Alternative is 2.3% less efficient than the No Project Alternative. DEIR/S page 5-22 and Table 5.3-7.

This result is not likely in areas planned and zoned for very low densities. The DEIR/S fails altogether to analyze the HST's role in inducing low density suburban and rural residential development. This is among the document's major flaws. The DEIR/S

O049-17 cont.

[10] Examples include the Auburn corridor as major new employers moved to the Sacramento region and north; the Truckee area which is approximately 1 hour from the major new job growth in the Auburn Corridor and Reno. Historical growth patterns in California clearly demonstrate that the close proximity of a major job center inevitably leads to growth inducement for housing within commute range. HST will render the Grasslands area within close commute range to major job centers in the Bay Area. While the DEIR/S should review relevant studies on growth inducement related to major transportation infrastructure, please see Attachment F for several recent newspaper articles that suggest potential growth-related impacts of this project.

Comment Letter O049 Continued

ignores the "ranchette phenomenon," which is the worst type of sprawl.[11] Census figures make it possible to separate rural and urban populations. The DEIR/S simply fails to consider the tremendous demand for this type of development and therefore fails to identify and analyze the additional significant impacts related to that growth including increased traffic, increased pollution, increased demand for services and infrastructure, accelerated and increased loss of open space, agricultural and habitat land. New transportation facilities are classic for inducing and accelerating growth particularly in rural and undeveloped areas. A revised DEIR/S must analyze likely new and accelerated growth based on existing general plans, the likelihood that HST will prompt general plan and zoning amendments for additional growth and accelerate both urban and rural development.

Without analysis of facts the DEIR/S concludes that HST will minimize a variety of impacts normally associated with growth due to its inherent incentives for directing urban growth:

> "In short, the HST Alternative provides a strong incentive for directing urban growth and minimizing a variety of impacts that are frequently associated with growth. This outcome would be seen in results for resource topics such as farmland, hydrology, and wetlands, where the indirect effects of the HST Alternative are less than the Modal Alternative, and in some cases less than the No Project Alternative, even with more population and employment expected with the HST Alternative." DEIR/S page 5-34.
>
> "Nonetheless, the results indicate that the HST Alternative would be able to accommodate more population and employment growth on less land than the other alternatives." DEIR/S page 5-10.

The DEIR/S continues on to conclude that the growth potential with HST is "potentially beneficial" with mitigation strategies. DEIR/S Table 7.3-1. These conclusions are not supported by adequate and transparent analysis or substantial evidence. A revised DEIR/S must indicate the likely increase in subdivisions of rural land and map those privately owned lands that will be subject to growth and development pressures.

Third, the DEIR/S fails to disclose the likely increase in demand in areas served by HST for second homes. For example, the Sierra Foothills along the Central Valley will become very accessible to the major population of LA, Sacramento and the Bay Area. The spectacular open space setting in the Sierra's already make it highly attractive for a second home market. With HST bringing these areas within an hour of major population centers, the likely increase in second home demand could be significant. The DEIR/S is silent on this potential growth inducing impact. A revised DEIR/S must include analysis of this potentially significant impact on rural areas proposed to be served by HST.

[11] The analysis completed by the American Farmland Trust (see comment letter submitted by AFT), suggests that 700,000 additional acres of land could be converted to rural ranchettes based on population projections and current ranchette development trends. This trend will accelerate the subdivision of open space lands for ranchette development where HST removes the barrier of accessibility to jobs.

O049-17 cont.

Fourth, stations proposed for rural areas are likely to require major new infrastructure and services. The DEIR/S fails to reveal the extent of these facilities nor does it analyze the growth inducing impact these new facilities will have in the immediate areas surrounding the stations. A revised analysis must include information about the types of services and infrastructure needed for these stations and analyze how the extension of those facilities will remove an existing barrier to growth in these formerly unserved and relatively remote areas. Specifically, the DEIR/S should describe the current general plan and zoning of each proposed station site and surrounding areas; the existing status of services and infrastructure; services and infrastructure that will be provided to serve each new station; and the likely growth inducing effect of the station and those facilities on adjacent lands.

Fifth, the DEIR/S discussion of economic and growth inducement suggests that the introduction of HST to the Central Valley will change the types of jobs in the region and lead to personal income growth:

> - Increased employment opportunities should lead to personal income growth in all regions of the state; this growth might be most pronounced in counties of the Northern Central Valley under the HST Alternative, since that region is projected to experience the largest employment gain. DEIR/S at 5-26.

The DEIR/S fails to analyze the likely results of this dramatic change, including, but not limited to increased demand for larger, high end homes, increased demand for services and overall increased in growth and development to serve the very different demands of higher income individuals and families.

O049-17 cont.

Finally, the mitigation strategies for growth inducement are not sufficient. While increased concentration of development around HST stations in downtown locations has the potential to avoid or minimize some impacts, the opposite is likely to be the case where stations are located in rural areas. The Cambridge Systematic study suggests that "regulatory style efforts to encourage increased density and a mix of land uses near rail stations have been effective." However, they also acknowledge that an exception to this would be the stations located outside the downtown areas of cities in the Central Valley. Moreover, specific mitigation measures, such as urban growth boundaries, transit oriented development district planning and zoning, housing density and affordability requirements and the like directed at avoiding sprawl must be in place prior to HST development. Such measures include:

> - Requirements for agreements with cities/counties the route traverses for "smart growth" policies (e.g. in downtowns around stations specific programming for higher densities, etc.; in rural areas specific policies for farmland protection, etc.)[12]. One mechanism to pursue these agreements

[12] Studies of whether transit stations automatically resulted in higher density, so called "smart growth" development have shown that these benefits are not automatic. Rather, land use and zoning changes must